

## Action Item

### *Educational Policy and Programs Committee*

#### The Production and Utilization of Education Doctorates for Administrators in California's Public Schools

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This agenda item responds to Assembly Bill 1279 ( Scott), legislation which directs the Commission to conduct a study on whether California is meeting its needs for persons holding a doctorate degree. The report focuses on the supply of and demand for persons holding doctorates in K-12 education. It includes the characteristics of education doctoral degree holders with regard to ethnicity, gender, and age and compares California with other states and the nation. It also identifies related policy issues that merit further examination. Upon approval by the full Commission, the report will be circulated to the Governor, the Legislature, postsecondary education sectors, and other interested parties.

*Recommended Action:* Committee approval and Commission adoption of the report for appropriate transmittal.

*Presenter:* Marge Chisholm.

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December 11, 2000, Draft

# THE PRODUCTION AND UTILIZATION OF EDUCATION DOCTORATES FOR ADMINISTRATORS IN CALIFORNIA'S PUBLIC SCHOOLS

*A Report in Response  
to Assembly Bill 1279*

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION  
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# 1

## Purpose, Background, Scope and Methodology of the Study

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**Purpose** Assembly Bill 1279 (Chapter 337 of the Statutes of 1999) called upon the California Postsecondary Education Commission (CPEC) to conduct a study of the capacity of higher education institutions located in California to produce sufficient professionals with applied joint doctoral degrees to meet the present and future needs in the State.

Responding to this legislative mandate, the Commission formed an advisory committee to assist in the study. The committee advised on the preliminary study design, potential survey instruments and work plan. It also met to review the entire study, including conclusions, options and recommendations (see Attachment A for a list of the committee members).

The Commission also retained the services of an independent consultant, Bill Furry, to assist staff in conducting the study over a period of six months, beginning in April 2000.

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**Role of the Commission** The Commission is charged with the planning and coordination of post-secondary education in the state, including the review and concurrence or non-concurrence on proposed new academic degree programs in public higher education. These responsibilities include the review and concurrence of doctoral programs proposed by the University of California or the University of California and the California State University and the approval of joint doctoral programs between the California State University and independent institutions. To date, the Commission has concurred in or approved 19 doctoral programs.

The Commission issued a report in 1987, entitled: *The Doctorate in Education, Issues of Supply and Demand in California* (87-11). It examined the history and status of doctoral degrees and doctoral degree programs in education in relation to the potential supply of, and demand for, holders of these degrees in California. The report focused on the broad question of whether or not additional doctoral programs in educational administration were needed in California. The following recommendations resulted from the 1987 study:

1. No new doctoral programs in educational administration be established in any institution not then offering the degree. Recognizing that some efforts were underway to plan new programs, including joint doctoral programs, which respond to issues of access and equity, the Commission recommended that any such programs be developed

to reflect concerns for such issues and concern for the quality, content, and effectiveness of existing programs.

2. An intersegmental committee investigate the needs and propose possible structures, components, and modes of delivery for doctoral programs designed specifically for present and future administrators in California's Community Colleges.

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**Scope and methodology of the study**

Although AB 1279 called for a broad study of applied joint doctoral programs, the Commission, after consulting with the author and the advisory committee, structured the study to more accurately reflect the intent of the author in the following ways:

1. The scope was broadened to include the Ph.D. in Education as well as the Ed.D., because it was believed the State must consider and include in the research design, every potential resource for meeting the demand for educational leaders with doctoral degrees.
2. The study was limited to the needs in California's public schools and does not address the supply of and demand for education doctorates in community colleges, four-year colleges and universities, private schools and universities or business and industry.
3. The study was expanded to review single-campus doctoral programs as well as joint doctoral programs, since both types of programs produce doctoral degrees that supply the need for educational leaders in California.

In an effort to understand the current production and utilization of the education doctorate, and therefore to understand the projected supply and demand ratio, a number of indicators were examined:

- ◆ National trends in the production of doctorates in education from 1981 through 1998 were analyzed. The trends are broken down by gender, ethnicity, and the specific field of specialization. The Survey of Earned Doctorates, a review conducted by the National Opinion Research Center at the University of Chicago, provided the national data used in this study.
- ◆ Characteristics of education doctorates in California during the same time frame were examined closely, broken down by the same data elements used in the national data.
- ◆ Production and characteristics of education doctorates in California were compared with those of the nation.
- ◆ Employment of persons holding doctorate degrees in the public schools of California was examined, including data on the number of doctoral degree holders, and the characteristics of their employment, ethnicity, and gender. The source of this information was the Califor-



nia Basic Educational Data System (CBEDS) for the fall of 1998, the most recent year available.

- ◆ The level of employment of education doctorates in California public schools was compared with that in five other states that are comparable in size and diversity (Florida, Illinois, New York, Pennsylvania and Texas).
- ◆ Indicators of school-district demand for persons with a doctorate, such as salary increments, bonuses for superintendents, district programs to encourage staff to attain the doctorate, and the trend in applications to doctoral programs were examined.
- ◆ Survey questionnaires were completed by elementary and secondary education (K-12) superintendents, community college presidents, superintendents, and chancellors, deans of the California State University Schools of Education, and deans of the education units of public, independent, and private colleges and universities that offer doctoral programs in education.

As a result of the aforementioned research activities, this report contains a comprehensive analysis of the supply of and demand for education doctorates in California's public schools. It presents primary findings and identifies a number of related issues that merit further examination. Working papers containing the supporting data and research instruments used for the study are available upon request.

Although the focus of the study is the K-12 public schools, surveys were also sent to community college presidents, superintendents and chancellors to gauge their responses on a variety of questions. The views of these chief executive officers are presented in this report as well.

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## Findings of the Study

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**T**HE GOAL OF THIS STUDY is to describe the production and utilization of education doctorates in California public elementary and secondary education and to assess if there is a need for greater production of such degrees by higher education institutions in the State. The basic public policy question is whether California postsecondary institutions now produce sufficient doctorates to meet current and future needs in the public elementary and secondary (K-12) education system.

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### **Findings based on study results**

Based on estimated supply and demand over the next decade, the Commission concludes that California will be able to maintain the current percentage of public school administrators who hold a doctorate. The number of doctorates in administrative positions has remained roughly constant over the last 10 years (rising from 2,122 to 2,184), with California universities having produced approximately 450 doctorates per year. The stable number of doctorates employed is consistent with a retirement rate of about 100 doctorates per year and a rate of employment of new doctorates in the public schools of about 110 per year.

However, this Commission report, despite its narrow focus on supply of and demand for doctorates in public education, suggests a need for a larger public-policy perspective related to the various aspects of doctoral education in California. Although overall production of education doctorates is sufficient to accommodate existing and future demand for doctorates in the State's public schools, if current levels of employment are accepted, a number of other important issues emerged that merit serious consideration.

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### **Further study or action needed**

In this section, the Commission raises nine questions about the production of education doctorates and the need for persons who hold such degrees and includes conclusions and suggestions for further study or action.

- 1. With elementary and secondary school reform movement leading to higher expectations for education leaders, should the State encourage school districts to employ more doctorates, and should institutions of higher education be encouraged to give priority admission to candidates who plan to work in the public schools?** Only a quarter of the education doctorates produced in California in 1998 will be working in the public elementary and secondary schools. The Commission found that, of approximately 160 searches for school superintendents over the last four years in California, not one district required that the new top educational leader hold a doctorate. Further, school boards rarely provided incentives such as salary ad-

justments or financial bonuses to promote the attainment of the doctoral degree in their districts.

*The Commission urges school districts and institutions of higher education to work together in determining whether or not priority admission should be provided to candidates who plan to work in the public schools. Further, public school boards should encourage attainment of the doctoral degree through incentives or position requirements.*

2. **Does the content of doctoral degree programs meet the needs for tomorrow's education leaders?** Superintendents who were surveyed frequently mentioned that there exists a need for doctoral programs that emphasize a practical knowledge base, including such areas as instructional methods, school finance, the politics of education, statistical analysis methods, school law, and project management. In fact, acquisition of broad-based knowledge is frequently mentioned by practitioners as the most important product of doctoral programs, even ahead of leadership skills.

*The Commission urges California's public colleges and universities to support increased emphasis on program curricula that meet the needs of leaders for management and organizational skills as well as policy understanding based on theory and practice. Additional support should be provided to enable closer collaborative relationships between various stakeholders in the content of the doctoral programs so that the content is responsive to current and future needs.*

3. **Can alternative training programs provide high quality educational experiences, particularly for education leaders in rural areas and small districts?** The findings of this study indicate that smaller school districts and rural regions tend to have fewer doctorates employed than larger, urban and suburban areas of California.

*The Commission urges higher education institutions to make doctoral programs more accessible to education leaders in rural areas. In addition, alternative training opportunities through administrative credential programs, education specialist programs, and courses focused on specific topics should be made available. These goals could be implemented through the use of distance learning programs.*

4. **Should the supply of, and demand for, faculty with doctoral degrees in the teacher and administrator training programs of California's four-year colleges and universities be examined?** This study did not focus on the needs of the four-year universities for persons who hold an education doctorate, but several of the deans of the State university schools of education gave unsolicited reports of shortages of education faculty with appropriate doctorates.

*The Commission suggests that a study be undertaken of the supply of and demand for faculty with an education doctorate in the California universities' schools of education.*

5. **Are programs accessible and affordable to aspiring educational leaders who desire to go into the field of education?** Data from the current study note the large number of education doctorates that are produced by the State's private sector. In 1998, private colleges and universities produced more than two-thirds of all education doctorates in the State. The value of the private sector cannot be over-emphasized when one considers the vital role these institutions play in California's professional and workforce development. Of equal importance is the role played by the public institutions, given the mission of the State University and the University of California to meet statewide needs in preparing educational leaders.

*Assuming that the Master Plan for Higher Education continues to guide State policy with regard to segmental spheres of jurisdiction and degree-granting authority, the Commission urges the State to examine program accessibility to ensure that education doctoral programs are available to all students, regardless of economic means or geographic limitations.*

6. **What can be done to address the ethnicity and gender disproportion of education doctorates as measured against their population in the State?** There has been a major increase in the production of doctorates -- 75 percent -- earned by underrepresented students in California over the past two decades. However, the proportion of minority candidates is very low as measured against their population in the state. With regard to gender disproportion, in 1998 males received only half as many education doctorates as females, with male education doctorates declining by almost 40 percent in the last 20 years. In the future, the prevalence of education doctorates among females who hold administrative positions will almost certainly exceed that of males.

*The Commission recommends that the public and private institutions of higher education in California undertake aggressive efforts to encourage admission to and successful completion of doctoral programs by ethnic minority and male candidates.*

7. **Should institutions of higher education be looking more closely at the need for doctorates in specialized fields?** Production of doctorates in many traditional educational specializations has been flat or declining over the past decade. The fields of educational psychology and testing, measurement and assessment are examples of such occurrence. With increasing importance being given to individual student, school, and district performance on standardized exams, school leaders need strong analytic skills in these areas to identify and address

the weaknesses in their programs. Based on the findings in this study, it appears that there is an unmet need for more doctorates in educational psychology and testing, measurement and assessments.

*The Commission urges further investigation into areas where there may be a greater need in order to quantify its magnitude and develop approaches to foster increased production of doctorates in such specializations.*

8. **Can it be presumed that there is value added in the attainment of doctoral training?** There is virtually no systematically collected evidence that the “leadership training” offered in educational administration/leadership doctoral programs has an impact on administrator behavior, or that it results in improved organizational or student performance. In addition to ensuring that the substance of the programs is related to desired outcomes, more attention needs to be given to evolving knowledge and skills required to address issues administrators face. Furthermore, the study and comments by several respondents suggest that the linkage between administrative behavior, institutional effectiveness, and student performance requires more attention in these programs.

*The Commission believes that better understanding of these programs is called for and urges a comprehensive study examining the impact of doctoral training on administrative behavior, school operations, and student learning.*

9. **Do community college administrators and instructors have access to appropriate doctoral programs?** This study found that doctorate degree programs for California Community Colleges’ administrators were scarce, with 60 percent of the community college chief executive officers indicating that there is no doctoral program in community college administration/leadership within a reasonable commuting distance of their campus. (Although the needs of community college leaders were not the focus for this study, information gleaned from surveys sent to presidents, superintendents and chancellors provided information on a variety of issues.)

*The Commission suggests that continued work is needed to identify the training needs of community college administrators and to determine the types of programs needed to address the range of their needs.*

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# 3

## Analysis of Supply and Demand for Education Doctorates in California's Public Schools

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**T**HIS SECTION presents an analysis of the capacity of California higher education institutions to produce sufficient education doctorates for the State's public schools. It contains the primary data and analysis upon which the Commission based its findings. It also includes selected results of the survey questionnaires used in the study. Complete documentation of the study findings is included in the study's working papers which are available upon request.

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### **Maintenance of the education doctorate workforce in the public schools**

In an analysis of employment-related supply and demand, it is customary to define demand as the number of qualified workers that employers are willing and able to hire at a point in time at the prevailing market wage.<sup>1</sup> Thus, current demand in the public schools for administrators who hold a doctorate is, by definition, the number of administrators who hold a doctorate who are employed in K-12 school districts.<sup>2</sup> The question addressed in this section is whether the production of education doctorates will be sufficient in the future to meet current demand; that is, to maintain the administrator doctorate workforce at its current level.<sup>3</sup>

**Demand.** Several factors work to deplete the doctoral workforce, retirement being the principal reason. Other reasons include departures for jobs in other fields before reaching retirement age, and deaths. In this study, the focus of the analysis of supply and demand is on retirements, which account for the vast majority of doctoral departures from the K-12 workforce.

Current demand can be measured in terms of absolute numbers (in 1998-99, there were about 2,184 administrators in the public schools who held a doctorate), or in terms of the percentage of all administrators in the public schools. To project the demand for doctorates based on the percentage

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<sup>1</sup> T. Bikson, et.al., The Labor Market for Attorneys in the State of California: Past, Present, and Future, The Rand Corporation, DRU-2236-UC, February, 2000.

<sup>2</sup> There are entities other than school districts that provide services for the benefit of K-12 pupils which employ persons with education doctorates. Data collection in this regard was beyond the scope of the project. It is likely that these persons are a relatively small number compared to the number employed by school districts (including county offices of education).

<sup>3</sup> It is not known exactly in which disciplines administrators received their doctorates, but our survey of school superintendents indicates that 93.7% of those who have doctorates have them in education.

of the administrative workforce, it is necessary to also project the number of administrators in the public schools. This was done based on enrollment, as recommended by Gifford, et.al., in a 1986 study of the need for education doctorates.<sup>4</sup>

Based on data availability, it is necessary to make two key assumptions in the calculation of retirements by doctorates: First, because retirement rates by age are available by salary level and not by educational attainment of administrators, it is assumed that the retirement rates of persons employed in the public schools who earn \$70,000 or more annually is the retirement rate of persons with education doctorates. Second, it is assumed that historic retirement rates by age will continue in the future -- an assumption that is subject to the possibility of changes in retirement benefits in an era of state surpluses. (Age distribution data were obtained from the California Department of Education and retirement rates were obtained from the State Teachers Retirement System.)

Applying the retirement rates to the age distribution and projecting the rates through future years, it is possible to estimate the number of retirements by year of administrators who hold a doctorate, as shown below (Display 3-1):

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*DISPLAY 3-1 New Doctorates Needed to Maintain the Level of Doctorates in the Public School Administrative Workforce*

<u>Year</u>	(1) Number of Doctorates <u>Retiring</u>	(2) Additional Doctorates for <u>Enrollment Growth</u>	(3) = (1) + (2) Total New Doctorates Needed to Maintain <u>Percentage Rate</u>
2000-01	59	7	66
2001-02	70	24	94
2002-03	79	18	97
2003-04	90	14	104
2004-05	99	15	114
2005-06	100	13	113
2006-07	107	8	115
2007-08	111	6	117

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Thus, to maintain the number of doctorates at the level existing in 1998-99 (2,184), new doctorates must enter the public school system annually as administrators (or, existing administrators must attain the doctorate) as estimated in column (1) of the above Display 3-1.<sup>5</sup>

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<sup>4</sup> B. Gifford, et. al., Meeting the Need for Educational Leadership by the University of California: A Proposal for President David P. Gardner by the Deans of the Graduate Schools of Education, April, 1986.

<sup>5</sup> In the 1987 study of education doctorates by CPEC, three alternative estimating procedures produced maintenance requirements of 73, 101, and 107 annually.



A simple linear equation was developed relating the number of public school administrators to total statewide enrollment and that equation was applied to the Department of Finance K-12 enrollment projections through 2007-08. The number of “growth” doctorates required each year is shown in the second column of Display 3-1. To maintain the percentage of administrators who hold a doctorate at the same level as it was in 1998-99 (9.1%), additional administrators who hold a doctorate would have to be employed in the public schools each year as shown in the third column of Display 3-1.

**Supply.** Supply is the number of otherwise qualified education administrators who hold a doctorate who are willing to work for a school district employer at a point in time at the prevailing market wage. Supply can be estimated as follows:

1. It is assumed that the production of education doctorates by California institutions continues through the next eight years at the average level for 1997-98, 1998-99, and 1999-2000. This number is 490.
2. From this number, the number of persons with temporary visas who return to a foreign location upon graduation must be subtracted. Based on data from the Survey of earned doctorates, roughly 5 percent of the new doctorates have temporary visas and roughly 75 percent of these return to a foreign location. Thus 5 percent of 490 times 75 percent = 18, and  $490 \text{ minus } 18 = 472$ .
3. Some persons from California earn the doctorate in other states and return to work here. Based on information from the 1998 Survey of Earned Doctorates, of 208 persons who earned education doctorates in all other states combined and went to high school in California, 59 percent planned to return to California. Thus, 59 percent of 208 = 123, and  $472 + 123 = 595$ .
4. It is not known how many persons who earn an education doctorate in California will leave the state.
5. Based on the record for the doctoral class of 1998 in California, approximately 28 percent, or 167 out of 595, will be employed in public elementary and secondary education.<sup>6</sup> It is not known how many of these doctorates will be working in private schools.

Therefore, the 167 doctorates produced per year who are willing to work in the public schools at the prevailing wage exceeds the roughly 100 to 110 needed to maintain the proportion of administrators in the system

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<sup>6</sup> Table 4-4 in the working papers for this report shows that 21.2% of the graduates of 1998 from California institutions had definite plans to work in K-12. However, about 30% of the new doctorates either did not indicate where they planned to work, or did not reveal any plans at all (work or postdoctoral study). These unknowns were prorated between work and study, and between the different types of employing organizations shown in Table 4-4, resulting in the estimate used here of 28%.

with doctorates. However, not all these new doctorates will remain in California and not all will take formal leadership positions. Doctorates in School Psychology, Teaching Fields, Special Education, and Counseling & Guidance who work in public schools may not have leadership roles. Thus, the 167 must be reduced by some unknown amount. Even if this total is reduced by 25 percent, it appears there would be sufficient production to maintain the level of doctorates in the system. Other sources of doctorates, which could not be estimated, include: (1) persons with doctorates who are working currently in the private sector, but who are seeking employment in the public schools; and (2) persons with doctorates who are working currently in other states, but who wish to work in California.

Increased production over the next eight years has not been included in the figures given above. Mills College has 30 students enrolled in its Education Leadership program which started in 1999. Saint Mary's College of California is scheduled to begin its doctoral program in Education Leadership in 2000. More than half a dozen other independent colleges plan to bring new doctoral programs online between 2002 and 2005. UC Riverside is planning a new joint-doctoral program involving eight California State Universities, and the University of San Diego, and San Diego State University will soon inaugurate a new joint-doctoral program. Finally, many of the existing programs have the capacity to increase production.

*Based upon estimated supply and demand over the next decade, the Commission found that California will be able to maintain the current percentage of public school administrators who hold a doctorate. New State initiatives will not be necessary to achieve this percentage.<sup>7</sup>*

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**The potential for increased demand for doctorate holders in the public schools**

However, it must be asked whether demand for doctorates in education is rising. The key questions are: (1) Do school boards and superintendents want more persons who hold an education doctorate working in their schools and central offices? and (2) Do the institutions of higher education need to produce more doctorates to meet increasing demand? The findings of this study suggest strongly that demand is not rising and, hence, there is no need to foster the production of a greater number of doctorates annually to meet rising demand. This section examines the evidence.

The classic indicator of increasing demand for a resource is rising prices. If school district employers wanted to hire more doctorates than they already have, there would be evidence of increasing wages tied to the possession of a doctorate. This study has found virtually no increases in

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<sup>7</sup> The number of doctorates in administrative positions has remained roughly constant over the last ten years (rising from 2,122 to 2,184) while IHEs have produced about 440 doctorates per year. The stable number of doctorates employed is consistent with a retirement rate of about 100 and a rate of employment of new doctorates in the public schools of about 25%.

wages for doctorates over the last five years among the public schools of California (and it is expected that this stagnation has existed for a much longer period). Two-thirds of the school districts do not offer any supplemental wage for the possession of a doctorate. Those schools that offer a stipend provide a nominal amount (\$1,000 per year being the mode) that is more likely an artifact of traditional salary negotiations with the teachers union than a policy intended to reward or attract doctorates or to encourage their development internally. To summarize, the wage data indicate there is little competition among school districts to attract personnel who hold doctorates.

There may be bureaucratic and political obstacles that prevent school boards from using money to attract leaders who possess a doctorate in education. However, these obstacles would not prevent a board from adopting a policy requiring that the district's chief executive officer, its head of curriculum and instruction, and its deputy superintendent with operational responsibility for all aspects of the school program, hold doctorates. This study looked closely at the educational attainment that school districts of all sizes around California require of newly hired administrators.

*The Commission found that, of approximately 160 searches for school superintendents over the last four years, not one district required that the new top educational leader hold a doctorate. It was not surprising, then, to find that in no case was the head of curriculum and instruction, compensatory education, special education, school psychology, or any other central office function required to possess a doctorate. These findings support the view that demand for doctorates in the public schools is not rising.*

Perhaps school boards value doctorates highly but do not want to limit the pool of candidates for administrative positions by requiring the doctorate. If this were the case, two things would be evident: First, relatively high value would be given to the doctorate in assessing candidates and in the ultimate hiring decision. And second, programs within districts to encourage and support employees in attaining the doctorate would be established. This study examined both these possibilities.

**Relative value of the traditional education doctorate.** It was the general consensus among the people interviewed who are knowledgeable about the hiring process in the public schools that the value of the education doctorate has declined over time relative to the value of other qualities. Change in the composition of school boards, the emergence of the "diploma mill," and the perception of lack of rigor in schools of education (a perception held by some deans as well as consumers of the degree) have contributed to the devaluation of the doctorate.

In addition, another factor is the shift of power over many aspects of schooling (particularly over revenues, but best illustrated by the imposi-

tion of categorical programs and State mandates) from the local entity to the state level. This has resulted in the need for a superintendent who can operate politically at the State level—in the capitol and in statewide education associations.

The standards movement is another important influence on the qualities desired today in educational leaders. Proven success articulating, planning, and carrying-out improvements in instructional programs is now more important than any other quality. School boards also look closely at district needs in assessing administrator candidates—for example, a rapidly growing district will want to hire a superintendent who can manage a complex construction program; a district with a diverse population, ethnically and linguistically, is going to look for a superintendent who can be successful in just such a complex environment.

*In sum, the Commission found that school boards are looking for new leaders who have demonstrated success, have broad experience, fit the needs of the district, and have good interpersonal skills to work effectively with the board, subordinates, and the community. As a result, the candidate with a doctorate alone faces stiff competition in the public schools today.*

On the other hand, perhaps a good candidate with a wealth of experience who performs well on the job could be an even more effective leader and facilitator of student learning if he or she has a doctorate. If governing boards believed this, perhaps they would establish programs to support and encourage employees to acquire an Ed.D. or a Ph.D. In the random survey of superintendents, the Commission found, however, that 85 percent of the districts across the state have no program to foster acquisition of a doctorate. Examination of what constituted the “program” in the 15 percent of districts that provide one revealed that in most cases it was the nominal doctoral stipend that was described earlier.

*This study reveals that programs to promote the doctorate in school districts are extremely rare. The lack of programs to promote the doctorate is another strong indicator of a lack of increasing demand for persons who hold the degree.*

Finally, waning demand for administrators who have an Ed.D. or Ph.D. is illustrated by the declining percentage of public school administrators holding either degree. In 1984-85, approximately 12.7 percent of public school administrators held a doctorate degree. In 1990-91, the percentage was 10.2 percent. In 1995-96, the percentage was 9.9 percent, and in the most recent year for which data is available, 1998-99, the percentage has dropped to 9.1 percent. These findings contribute to the conclusion that demand for doctorates in the public schools is not increasing. Again, absent any change in current conditions, there is no reason for California to adopt policies to promote an increase in the production of doctorates in education based on rising demand for “doctoral resources.”

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**Assessing  
whether  
public schools  
should have  
more  
leaders who  
hold a  
doctorate**

An important and difficult question is whether California public schools should employ more leaders who hold a doctorate. Perhaps demand for doctorates is weak because school board members, parents, community leaders, teachers, and pupil services personnel are simply unaware of the qualities (the knowledge, skills, and abilities) that a person with a doctorate brings to the job by virtue of attaining the highest advanced degree. This section attempts to address this issue by first examining existing research concerning the impact of doctorates on school operations and student achievement.

**Evidence from Research.** Unfortunately, review of the available literature yields little about the impact of administrator preparation programs on the performance of the public schools. In an extensive review of the literature on the effectiveness of administrator preparation programs, Miklos (1992)<sup>8</sup> found that the research “is fragmented, few questions are pursued in depth, and patterns in results are difficult to discern.” Assessments of the effectiveness of preparation programs are usually based on reported participant satisfaction, or on surveys of practicing administrators about their opinions of the adequacy of their training.

In 1999, Shakeshaft<sup>9</sup> wrote that there is “certainly no evidence that schooling and achievement, however measured, are related to anything we do in preparation programs in education administration.”

McCarthy (1999)<sup>10</sup> concluded her comprehensive review of the development of leadership preparation programs with these observations:

A number of gaps are apparent in the information available on educational leadership units and preparation programs. Most significantly, there is insufficient research documenting the merits of program components in relation to administrator performance. Do preparation programs actually achieve their asserted purpose of producing effective leaders who create school environments that enhance student learning? . . . Adequate justification has not been provided for mandatory graduate preparation for one to lead a public school in our nation . . . similar preparation is not required for individuals to lead other large organizations, agencies, and corporations. Data are needed to either justify the expense of such education or suggest that resources be directed elsewhere.

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<sup>8</sup> Miklos, E. “Administrator preparation, educational,” in M. C. Aikin (Ed.), Encyclopedia of Educational Research, 6<sup>th</sup> edition, pp 22-29, McMillan, 1992.

<sup>9</sup> Shakeshaft, Charol, “A Decade Half Full or a Decade Half Empty, Thoughts from a Tired Reformer,” in Joseph Murphy and Patrick B. Forsyth (Eds.), Education Administration in a Decade of Reform, p. 237, Corwin Press, 1999.

<sup>10</sup> McCarthy, Mary, “The Evolution of Educational Leadership Preparation Programs,” in Joseph Murphy and Karen Seashore Louis (Eds.), Handbook of Research on Educational Administration, 2<sup>nd</sup> edition, p. 133, Jossey-Bass, 1999.

The lack of research linking doctoral programs to the quality of school operations and student achievement is understandable because of the extreme complexity of the subject—there are simply too many variables to control to isolate the impact of preparation programs. If research to-date is of no guidance, how else might the need for more doctorates in administrative positions in the public schools of California be assessed? In the following subsections this question is addressed from a variety of perspectives.

**Production of doctorates in California and the nation.** If it were the case that schools of education across the nation were expanding their production of education doctorates, and that this expansion appeared to be a secular trend, it might be an indication of widespread rising demand in the public schools for employees who hold a doctorate. Put another way, if the rest of nation is increasing its production of education doctorates, perhaps California should do so as well. This study has found, however, that national production has declined significantly over the past 20 years (down 15%).<sup>11</sup>

**Enrollment per doctorate.** Another national characteristic which might suggest that California needs to increase its production of education doctorates is enrollment per doctorate produced.<sup>12</sup> Public K-12 enrollment per doctorate awarded is much higher in California than in the nation as a whole, and it grew significantly more here than in the nation during the last decade. From 1988 to 1998, there was a 17.1 percent increase in enrollment per new doctorate in California compared to a 9.9 percent increase in the nation. This occurred because, even though the growth of doctorates was greater in California than in the nation during the period, enrollment increased 28 percent in the state but only 16 percent in the nation. In 1998, there were 14,685 K-12 students for every doctorate produced in California compared to 9,438 in the nation.<sup>13</sup> This finding might suggest that California would want to increase its annual production of education doctorates to match the increased enrollment. Again however, the Commission found no evidence of rising demand in the public schools for doctorate holders as a result of enrollment increases.

**Employment of doctorates in the public schools of California compared to that in comparable states.** An indicator that might suggest the conclusion that California increase its production of education doctorates would be a higher prevalence of doctorates among school district administrators in comparable states. This study compared California to Florida, Illinois, New York, Pennsylvania, and Texas in terms of the percentage of

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<sup>11</sup> If the study had revealed a strong national increase in the supply of education doctorates, this fact would have been thoroughly investigated to determine whether it actually stemmed from an increase in demand by public school employers.

<sup>12</sup> We could also look at enrollment per doctorate employed in the public schools. But the number of doctorates employed is not available nationally.

<sup>13</sup> The validity of this comparison assumes that about the same percentage of education doctorates take employment in elementary and secondary school in the nation as do in California.

incumbents who hold a doctorate in the positions of superintendent, central office administrator, high school principal, elementary school principal, and other school-site administrator. These states are, in many respects, comparable to California in size, ethnic and cultural diversity, and income distribution. In over all numbers, California ranks above Florida and Texas and below Pennsylvania, Illinois, and New York.

The number of doctorates per 1000 administrators in the selected states is shown below (Display 3-2):

*DISPLAY 3-2 Doctorates per 1,000 Administrators in Selected States*

<u>State</u>	<u>Number of Doctorates per 1000 Administrators</u>
Pennsylvania	173
Illinois	134
New York	99
CALIFORNIA	91
Florida	61
Texas	58

Other findings, broken down by position, include:

- ◆ California has a lower percentage of incumbents who hold a doctorate than Illinois and Pennsylvania in all administrative positions -- superintendent, central office administrator, high school principal, elementary school principal, and other school-site administrator.
- ◆ California has substantially more doctorates in central office positions than New York (13.3 versus 9.4%), but trails that state in all the other administration categories.
- ◆ California leads Florida in doctorates in the positions of superintendent, central office administrator, and high school principal. But California has a lower percentage of doctorates than Florida serving as elementary school principals and other site administrators.
- ◆ California has a higher percentage of persons who hold a doctorate than Texas in all administrative categories.

It is difficult to determine from these data whether California should be seeking to produce and employ more doctorates. It would be helpful to know what the employment trend has been in these other states—in California it has been down for the last 15 years as pointed out earlier -- however, that information is not readily available for other states. If California were at the bottom of this list, it might suggest a deficiency of doctorates in this state.

*Given the limited information available, however, the employment rate is not a useful indicator of the need to produce more doctorates for administrative positions in the public schools.*

**Results of  
surveys  
of educational  
leaders**

Another way to assess whether the public schools should employ more administrators who hold a doctorate is to solicit the opinions of those who are most informed about the knowledge, skills, and abilities of public school administrators. Therefore, public school superintendents, deans of CSU schools of education, and deans of schools of education in institutions of higher education that produce education doctorates were asked whether California needs more superintendents, principals, and central office administrators who hold a doctorate in education.

**Need for More Superintendents and Principals Who Hold a Doctorate.** The percentage of respondents in each category surveyed who indicated a high need (a rating of 4 or 5 on a scale of 1 to 5) for more doctorates in education in the positions of superintendent and principal are shown below (Display 3-3). The views of superintendent respondents are broken out between small districts (< 2,500 enrollment) and larger districts (> 2,499 enrollment), and between superintendents who hold a doctorate and those who do not.

*DISPLAY 3-3 Views of the Need for More Doctorates in Education in the Positions of Superintendent and Principal*

Percentage of Respondents Indicating High Need (4 or 5 on scale of 1 to 5)						
	Small District Superintendents		Larger District Superintendents		Deans of Doctoral Programs	CSU Deans of Education
	No Doc	Have Doc	No Doc.	Have Doc		
Superintendent	12%	84%	10%	72%	77%	95%
Principal	0%	55%	4%	38%	65%	84%

The responses can be summarized as follows:

- ♦ Deans of doctoral programs, California State University (CSU) deans, and superintendents who hold a doctorate are, for the most part, in agreement that California needs more superintendents who possess a doctorate.
- ♦ Superintendents who do not hold a doctorate (in both larger and small districts) see little need for more superintendents who have a doctorate.
- ♦ The perceived need for more principals with a doctorate in education is less for all groups of respondents than the indicated need for more superintendents to have a doctorate.

**Views of superintendents of the importance of having a doctorate.** Another view of the issue is the importance given by superintendents to having a doctorate in educational administration/leadership for doing a good job in an administrative position. Those results are shown below (Display 3-4):



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*DISPLAY 3-4 Views of Superintendents of the Importance of  
Superintendents and Principals Having a Doctorate*

Percentage of Superintendents Giving a High and Low Importance Rating

	<u>Low Rating (1 and 2)</u>		<u>High Rating (4 and 5)</u>	
	<u>Small</u> <u>Districts</u>	<u>Larger</u> <u>Districts</u>	<u>Small</u> <u>Districts</u>	<u>Larger</u> <u>Districts</u>
Superintendent	40%	20%	32%	70%
High School Principal	61%	39%	9%	27%
Elementary Principal	77%	54%	5%	14%

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These responses can be summarized as follows:

- ◆ Small-district superintendents are much less likely to think that having a doctorate in education administration/leadership is very important for doing a good job as a superintendent or principal than larger-district superintendents.
- ◆ The importance for principals is seen as substantially less than for the superintendent.

As was found with respect to the need for more doctorates, there is a difference between the views of superintendents who hold a doctorate and those who do not:

- ◆ Half of those who do not have a doctorate rated it unimportant that a person have a doctorate in education administration/leadership for doing a good job as a superintendent, while 90 percent of those who have the advanced degree gave it a high rating for importance.
- ◆ The difference between those with and without a doctorate is less with respect to the importance of a doctorate for principals. Less than half of superintendents who held a doctorate gave high ratings to importance for high school principal, and only 20 percent rated importance high for elementary school principal. None of those without a doctorate gave high ratings of 4 or 5 to importance for a high or elementary school principal.

*In sum, significant majorities of CSU deans, deans of institutions of higher education that award doctorates, and superintendents who hold a doctorate indicate a need for more education doctorates among superintendents and principals in the public schools. On the other hand, superintendents who do not have a doctorate, who presumably see themselves as doing a good job without it, see little need for more doctorates in the positions of superintendent and principal.*

In terms of importance of the doctorate in education administration/leadership for doing a good job, none of the subgroups (small and larger districts, those with and without a doctorate, and combinations of these two variables) gave high ratings for either high- or elementary-

school principals. However, larger-district superintendents and those with a doctorate gave high ratings to the importance of having a doctorate in education administration/leadership for doing a good job as a superintendent. These findings suggest the knowledge, skills, and abilities imparted by doctoral programs are needed more by superintendents than by principals.

The preceding observation about principals is corroborated to some extent by findings concerning the benefits of alternative training for principals. In response to a question regarding whether there are professional development programs available for principals that provide training as beneficial as a doctoral program in education administration/leadership, 46 percent of larger-district superintendents responded affirmatively, 45 percent responded negatively, and 9 percent did not know. Most small-district superintendents (88%) responded affirmatively, and 69 percent of the small-district superintendents who hold a doctorate answered affirmatively. However, only 35 percent of the larger-district superintendents who hold a doctorate supported the view that alternative training is available to principals that is as beneficial as a formal doctoral program in education administration/leadership.

#### **Benefits of Doctoral Training for Superintendents and Principals.**

Those respondents who indicated a high need for more doctorates in the positions of superintendent and principal were asked to explain why. The objective was to gain an understanding of perceptions of the “value added” by doctoral training. This subsection presents the benefits of doctoral training, as perceived by superintendents, deans of institutions of higher education that award doctorates, and deans of CSU schools of education.

- ♦ *Superintendents* indicated that the benefits of doctoral training were the following, in order of most frequent mentions: (1) symbolic value (credibility and respect as a basis for leadership), (2) general knowledge base, (3) leadership skills, (4) analytical skills, and (5) upgrade of the profession. The importance of the symbolic value is underscored by responses to another question in which superintendents were asked to compare the symbolic value of doctoral training to the value of the training itself: 48 percent responded that the symbolic value exceeded the training value, and 77 percent indicated that the symbolic value is equal to or greater than the training value.
- ♦ *Deans of institutions of higher education that award doctorates in education* emphasized three benefits of doctoral programs (in no particular order of importance, which was not possible to discern): (1) knowledge of teaching and learning; (2) the ability to analyze data and relate research to practice, and (3) leadership skills that can be applied to improve instruction. The most persuasive statement of need for a doctorate in education was as follows: “Administrators and other school leaders need to (1) use theory and research consistently

as an essential component in decision making; (2) understand teaching and learning in depth; (3) view organizational structures and cultures as mechanisms through which to lead; and (4) direct and interpret program evaluation and research.”

- ◆ *Deans of California State University schools of education* (which institutions provide much of the credential training for administrators in California) indicated the following benefits of doctoral training, essentially in order of importance: (1) Leadership skills to lead change, reform, and instructional improvement, including skills in inter-group dynamics, community relations, knowledge of the politics of education, and knowledge of organizational theory; (2) the ability to understand research methods and the implications of high quality research, to conduct “action research” on existing problems, and to carry out program evaluation and assessment; (3) understanding of curriculum, learning theory, and instructional methods; and (4) the ability to command respect and to act professionally and ethically.

As can be seen, there is considerable congruence in the views of the three groups about the benefits of doctoral programs. However, without research to substantiate that doctoral students actually acquire these skills and that they are effectively applied in practice, it is unclear whether these are statements of goals or actual descriptions of the knowledge, skills, and abilities imparted by doctoral programs.

Careful review of the comments and responses of superintendents and others discloses a set of rewards that doctorates acquire independent of the content (and perhaps even of the quality) of the training program. It could be argued that these benefits of doctoral training, as outlined below, are sufficient to warrant the expansion of production in California. These are:

- ◆ Credibility and respect in the school district;
- ◆ Sense of satisfaction -- self-confidence and courage -- a foundation for leadership;
- ◆ Exposure to new theories, concepts, and techniques -- intellectual growth;
- ◆ Friends, contacts, and networks (who can be sources of advice and solutions to problems); and
- ◆ Respect for research -- less acceptance of the conventional wisdom without rigorous examination.

The findings in this section indicate that there are large numbers of deans and superintendents who think California needs more persons who possess a doctorate in the ranks of superintendents and principals. The outcomes and benefits of doctoral training have been summarized as accu-

rately as possible from the comments of the respondents. Taken as a whole, the views of superintendents, deans of CSU schools of education, and deans of institutions of higher education that award doctorates offer strong arguments in favor of expanding production of doctorates to be employed in California's public schools in the positions of principal and superintendent.

**The Need for More Central Office Administrators Who Possess a Doctorate in Education.** In the surveys, superintendents were asked to indicate the administrative positions (or roles, which is more appropriate for small districts) in which California needs more persons who hold a doctorate. The percentage of superintendents who gave a high rating (a 4 or 5 on a scale from 1 to 5) to the importance of having more incumbents of specified positions possess a doctorate are shown below (Display 3-5).

<i>DISPLAY 3-5 Superintendents' Views of the Importance of Having More Doctorates in Specified Positions or Roles in the Public Schools</i>			
	Larger Districts		Small Districts
<u>Administrative Position</u>	<u>Percent High Im-</u> <u>portance</u>	<u>Administrative Position</u>	<u>Percent High Im-</u> <u>portance</u>
Deputy Superintendent	65%	Head of research and evaluation	44%
Associate Superintendent	60	Deputy Superintendent	33
Head of research & evaluation	58	Associate Superintendent	24
Head of curriculum & instruction	45	Head of curriculum & instruction	20
Head of staff development	32	Head of staff development	13
Head of pupil services	26	Head of special education	7
Head of staff personnel	25	Head of compensatory education	7
Head of special education	24	Head of staff personnel	6
Head of finance/business	16	Head of pupil services	6
Head of bilingual education	16	Head of bilingual education	0
Head of compensatory education	14	Head of finance/business	0

As shown, superintendents of small districts see it as much less important to increase the number of incumbents in these positions (or roles) who possess a doctorate than do superintendents of larger districts. Second, the high ranking given to Head of Research and Evaluation by both groups of superintendents is noteworthy, though not surprising, and particularly interesting in the case of the small-district superintendents. Finally, it should be pointed out that generally low percentages (less than a

third in many cases) of superintendents ascribe high importance to increasing the number of doctorates for many positions.

In the surveys, Deans of California State University schools of education and of institutions of higher education that award doctorates in education were asked to prioritize the need for doctorates in various educational specializations.

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*DISPLAY 3-6 Dean's Views of the Priorities for the Production of Education Doctorates*

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Deans of Doctoral Programs		CSU Deans		CSU Deans Priorities for New Joint-Doctoral Programs	
Ed. A/L	50%	Ed. A/L	89%	Ed. A/L	93%
C & I	40	C & I	47	Spec. Ed.	56
Ed. Psych	27	Ed. Psych.	47	C & I	47
Teach Fd	21	Sch. Psych.	24	Teach Fd	29
Spec. Ed.	20	Spec. Ed.	18	S/P Found	18
C & G	13	Teach Fd.	13	Ed. Psych	12
Sch. Psych.	13	C & G	12	Sch. Psych.	12
Adult	0	Adult	6	C & G	12
S/P Found	0	S/P. Found	6	Adult	6

Additional Specializations Mentioned by:

Deans of Doctoral Programs: Urban Education, Multicultural Education, Instructional Leadership, Language and Literacy, Staff Development, Testing and Assessment.

CSU Deans: Reading/Literacy (2), Business Administration, Communications, Ethics, Higher Education Administration, Instructional Technology, Urban Educational Leadership.

CSU Deans' Joint-Doctoral Priorities: Reading/Literacy (3), Educational Technology (2), Assessment and Program Evaluation, Mathematics Teaching Field, Rehabilitation Counseling, Urban Educational Leadership.

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There is substantial agreement between the California State University deans and the deans of doctoral programs about high- and low-priority needs among the educational specializations. As for priorities for new joint-doctoral programs, CSU deans give Special Education a high priority (56% of the deans indicated new joint-doctoral programs in this field are a top priority), and a surprisingly low priority to Educational Psychology (only 11.8% of the deans gave a top priority ranking to Educational Psychology). Priorities in the establishment of new joint-doctoral programs depend on many factors -- particularly on the qualifications and interests of the faculty -- but there appears to be a significant divergence between the high importance given to the need to increase employees in the public schools who have been trained in Educational Psychology (ranked second in importance with Curriculum & Instruction) and the relatively low priority given to this specialization for the establishment of new joint-doctoral programs.

From these data, it is evident that a great majority of deans of both California State University schools of education and institutions of higher education that offer doctorates are of the opinion that the public schools need more doctorates. In addition, it is obvious that when the ratings of four and five are combined, the need is focused on three specializations -- Educational Administration/Leadership, Curriculum & Instruction, and Educational Psychology. There is also some emphasis on the need for more doctorates in Teaching Fields and particularly in the specialization of Reading.

*The Commission's findings support the view that, in terms of the needs of the public schools, California's institutions of higher education should expand production of education doctorates in the identified specializations.*

<b>The content of doctoral programs in education administration/ leadership</b>	<p>The view that California needs more persons in administrative positions who hold a doctorate in Education Administration/Leadership requires an understanding (or perception) of the knowledge, skills, and abilities that doctoral programs impart to their participants. The argument for increased production is weakened if there is disagreement among authorities about what the goals of doctoral programs should be, or if there is incongruity between what the producers of doctorates in Education Administration/Leadership say their programs impart and what knowledgeable practitioners and observers say should be imparted.</p> <p>In the Commission's surveys, superintendents and CSU deans of schools of education were asked to identify the five most important skills, abilities, areas of knowledge, and experiences that a doctoral program in Education Administration/Leadership <i>should</i> provide its participants. Deans of such doctoral programs, on the other hand, were asked to identify the five most important skills, abilities, areas of knowledge, and experiences that their programs actually impart to their doctoral candidates. The results are summarized below (Display 3-7).</p>
<p><i>DISPLAY 3-7</i></p>	<p><i>Content of Doctoral Programs, Top Five Content Areas by Respondent Group</i></p>
<p>Superintendents of Small Districts</p>	<p>Superintendents of Large Districts</p>
<p>Change Agent skills Leadership skills Knowledge of School Finance Knowledge of Instructional. Methods Knowledge of Politics of Education</p>	<p>Change Agent skills Knowledge of Org. Theory Leadership skills Communication skills Leadership of Diversity*</p>
<p>Deans of Doctoral Programs</p>	<p>CSU Deans of Schools of Education</p>
<p>Leadership of Diversity Leadership skills Practical Dissertation</p>	<p>Leadership of Diversity Change Agent skills Leadership skills</p>

*DISPLAY 3-7 Continued*

Knowledge of Org. Theory  
Clinical Practice

Knowledge of Org Theory  
Knowledge of Ed. Politics\*\*  
Communication skills\*\*

\*Capacity to provide leadership in an organization characterized by diversity

\*\*Equal

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The findings can be summarized as follows:

- Superintendents of large school districts and CSU deans of schools of education have very similar views of what doctoral programs should provide, both giving heavy emphasis to leadership skills.
- Cluster analysis of the CSU deans' responses revealed three slightly different emphases within the leadership framework: (1) A doctoral program in Education Administration/Leadership that focuses on "Instructional Leadership" and includes "Knowledge of instructional methods and related research" which the other CSU subgroups do not include; (2) a program that emphasizes practical leadership skills; and (3) a program that emphasizes theoretical knowledge of organizational dynamics, completion of a discipline-based dissertation, and leadership skills.
- The deans of doctoral programs indicate that their programs have an emphasis on the leadership skills desired by large-district superintendents and the CSU deans. However, the deans of institutions of higher education that produce doctorates also give high importance to completion of a practical dissertation and "clinical practice involving field-based problem solving." Cluster analysis did not reveal distinct subgroups, but showed that several individual programs had different emphases from the great majority.
- Small-district superintendents differ from large-district superintendents in that they want knowledge in the specific areas of instructional methods, school finance, and the politics of education.
- Cluster analysis within the large-district superintendents revealed two distinct subgroups: (1) A group of 56 superintendents who desire heavy emphasis on leadership skills in a doctoral program in Educational Administration/Leadership; and (2) a group of 36 superintendents who want greater emphasis on the knowledge base, particularly knowledge of instructional methods, school finance, organizational theory, and the politics of education.
- Superintendents give little emphasis to completing a dissertation as an important part of a doctoral program in Administration/Leadership. Also, except for one subgroup, the California State University deans do not give high importance to the dissertation. However, half of

deans of doctoral programs consider the dissertation one of the five most important elements of their doctoral programs.

In reviewing this section, many superintendents share a consistent view with California State University deans, and to a lesser extent with the deans of doctoral programs, of what a doctoral program in Education Administration/Leadership should consist. However, it is also apparent that significant numbers of large-district superintendents and most small-district superintendents want a doctoral program that emphasizes, in addition to leadership skills, knowledge in specific areas -- school finance, instructional methods, the politics of education, and organizational theory—which are program elements that appear to be of lower priority to the deans. There is considerable variation among doctoral programs in what they offer, and priority for some elements does not mean that inadequate attention is given to other elements. However, a program in Educational Administration/Leadership that does not offer instruction in the areas of knowledge that have been mentioned will not be satisfactory to some participants.

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**The need for  
more education  
doctorates in  
specific  
situations**

This study has examined the prevalence of doctorates in terms of a variety of characteristics including school district size and location, gender, ethnicity, age of doctorates, and others. This section assesses the need for more doctorates in specific situations.

**Gender.** In the early 1980s the gender trend lines crossed for production of education doctorates in California. Since at least 1983, more female education doctorates have been produced annually than male doctorates. In 1998, 278 women were awarded an education doctorate, while only 135 males received the degree. California has not been unique in this regard. Nationally, from 1981 to 1998, the production of male doctorates declined by 38 percent, while in California production fell 35 percent from 1978 to 1998. During the same periods, production of female doctorates increased 20 percent in the nation and 53 percent in California.

In terms of the occupants of administrative positions, this study has shown that in 1998, among superintendents, a slightly higher percentage of females have a doctorate than males, among central office administrators, substantially more males have a doctorate, and among principals, slightly more males have doctorates. However, for both principals and central office administrators, there are more females who hold a doctorate than males because there are significantly more female incumbents in these positions.

*In the future, the prevalence of doctorates among females who hold administrative positions will grow to exceed that of males. If equality between the genders is a goal, then clearly California needs to encourage more males to obtain the degree.*



**Ethnicity.** There has been a major increase in the production of ethnic-minority education doctorates in California over the past twenty years. In California, the number of ethnic minorities earning an education doctorate increased by 75 percent between 1978 and 1998—this compares to a national increase of 26 percent between 1981 and 1998. At the same time, national production of white doctorates declined 21 percent, but in California the output of white education doctorates fell only 2.4 percent. In 1998, there were 284 education doctorates awarded to whites and 117 to ethnic-minorities. Thus, despite the increase over the last 20 years, ethnic minorities in California in 1998 received disproportionately fewer education doctorates.

In terms of the incidence of doctorates among position incumbents, there was rough equality in 1998 across ethnicities in the position of superintendent, except that there were fewer Asian superintendents who held a doctorate (32% compared to the statewide total of 47.6%). (It should be noted that the issue of the number or percentage of administrative positions held by ethnic minorities, while important, is a different issue from the one addressed here.)

In central office administrative positions, there was substantial variation across ethnicities in 1998. Again, attention is drawn to the relatively low percentage of Asians (6.9%) in central office administrative positions who held a doctorate.

There was also considerable variation in 1998 across ethnicities in the prevalence of doctorates in the position of principal. In this case, Asians have a higher percentage of doctorates than the other large ethnic groups—perhaps reflecting more recent entrance into the doctoral system by persons from Southeast Asia. Hispanic principals who held a doctorate were relatively few compared to the other large ethnic groups.

In summary, the relative incidence of doctorates among minorities in administrative positions is mixed. Most minorities who attain the positions of principal or superintendent are about as likely as whites to hold a doctorate. In the central office administrative positions, members of the large minority groups are less likely than whites to hold a doctorate.

**Gender Within Ethnicity.** The California production figures outlined above mask significant differences between genders within ethnicities. Significant trends have occurred within Asian, Hispanic, African American, and White groups, as shown in Display 3-8:

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*DISPLAY 3-8    Production of Education Doctorates, Gender Within Ethnicity*

<u>Percentage Change, 1978 to 1998</u>		
<u>Ethnicity</u>	<u>Males</u>	<u>Females</u>
African American	-19%	+56%
Asian	0	+50
Hispanic	+25	+500
Whites	-42	+44

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As can be seen, large percentage increases have occurred in the production of female doctorates, particularly in the case of Hispanic women, while the percentage of male African American and White doctorates have declined. However, the numbers for the minority groups are very small (the increase for Hispanic women is from six to 30, that for African American women is from 16 to 25, that for Hispanic men is from 12 to 15, and the decline for African American males is from 16 to 13). The decline for White males is large, from 153 to 89. Conversely, the increase for White women is large, from 135 to 194.

*From 1998 data, it can be argued that there is a need for the production of more ethnic-minority education doctorates, based on disproportionality with their population in the state and on lower rates of possession of the doctorate in central office administrative positions. In addition, few minority male doctorates were produced in 1998 compared to minority females, and compared to majority males and females.*

**Age of Doctorates.** The ages of recipients of education doctorates in California and the nation are relatively high when compared to recipients in other academic and professional fields. In California, in 1998, 46 percent of the education doctorates were awarded to persons over 45 years of age. Only 20 percent of doctorates were received by persons under 36 years of age and only 5 percent were under 31 years old. Of those persons in public school administration who already hold a doctorate degree, only 576 (28%) of the 2,034 were under the age of 50.

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**Growth and decline in the production of doctoral specializations**

Previous decades have witnessed a shift in the education specializations offered by institutions of higher education. In California and the nation, there has been a shift from traditional specializations, such as Counseling and Guidance, Special Education, Adult and Continuing Education, Educational Psychology, and Curriculum and Instruction, to Education Administration/Leadership and to specializations with new names such as Multicultural Education and Education Policy. The changes for California from 1988 to 1998 and for the nation from 1981 to 1998 are shown below (Display 3-9).

DISPLAY 3-9 *Percentage Change in Doctorates Awarded in Selected Specializations, California and the Nation*

<u>Specialization</u>	<u>California 1988-1998</u>	<u>Nation 1981-1998</u>
Administration/Leadership	+47%	+23%
Curriculum & Instruction	-15	+4
Testing, Measurement, & Assessment	-100 (from 9 to 0)	+13
Educational Psychology	-20	+6
School Psychology	+75 (from 4 to 7)	+24
Counseling and Guidance	-64	-53
Special Education	-53	-25
Adult & Continuing Education	-100 (from 3 to 0)	-30
Pre-Elem., Elem., Secondary	--- (from 0 to 5)	-58
Higher Education	-35	-36
Teaching Fields	+19	-38
Social/Philosophical Foundations	+78	-34
Education, General	-49	-49
Education, Other	+45	+77

The percentages shown above can be somewhat misleading in particular instances because there are considerable fluctuations between years in the production of doctorates in individual specializations. Nevertheless, in California the trend has been either flat or declining for all traditional specializations except Education Administration/Leadership which has grown sufficiently to result in an 8.9 percent overall increase in education doctorates from 1988 to 1998.

The decline in doctorates in Educational Psychology and Testing, Assessment, and Measurement has occurred at a time when interest in achievement, as measured by standardized tests, has grown rapidly and new programs have been established linking awards, sanctions, and even graduation to performance on statewide exams. The opinions of superintendents and deans that the public schools need more persons with expertise in educational psychology and research and evaluation, plus the financial rewards and penalties that have been attached to performance, suggest there is a need for the institutions of higher education to produce more doctorates in these two areas.

Curriculum and Instruction and the Teaching Fields have suffered over the years--production has been essentially flat during the 1990s, while public school enrollments have grown 28 percent (the 19% increase for Teaching Fields represents an increase from 21 doctorates in 1988 to 25 doctorates in 1998). For the same reasons that indicate a need for the production of more doctorates in educational psychology, plus the ongoing efforts in California to reform methods of reading instruction, the Commission finds that an increase in the production of specialists in curriculum and instruction and in selected teaching fields would be appropriate.

**Shortage of education doctorates in small school districts and in certain regions of California**

Based on 1998-99 data, it was observed that the larger the school district, the more likely the superintendent would possess a doctorate degree. It was also found that small districts in the Central Valley, the rural parts of Northern California, and the rural mountain regions are less likely to have a superintendent who holds a doctorate than small districts in the urban part of Southern California and in suburban areas. Furthermore, Central Valley, the rural parts of Northern California, and the rural mountain regions had significantly fewer county office of education superintendents who hold a doctorate than other regions in the state.

In general, large districts tend to have more doctoral resources than smaller districts. Display 3-10 shows that doctoral resources are strongly related to district size.

*DISPLAY 3-10 Central Office Administrators with Doctorates by Size of District, 1998-1999*

<u>District Size</u>	<u>Number of Districts</u>	<u># of Central Office Administrators with Doctorate</u>	<u># of Central Office Administrators with Doctorate Per District</u>
< 2,500	495	32	0.07
2,500-4,999	134	82	0.61
5,000-9,999	134	158	1.18
10,000-19,999	87	195	2.24
20,000-39,999	57	170	2.98
40,000 +	13	142	10.92
County Offices	58	173	2.98

The study also addressed the question of the prevalence of principals who hold a doctorate in various regions of the state. It was found that Southern California has a higher percentage of principals who hold a doctorate than other regions, and that the Central Valley and the rural parts of Northern California have the lowest percentages. However, the Central Valley and the rural mountain regions have significantly higher percentages of high school principals who hold a doctorate than elementary schools principals.

This subsection clearly shows that smaller districts and rural regions tend to have fewer “doctoral resources” than larger districts and the urban and suburban areas of California. Equalization of doctoral resources (if this were a policy goal) would probably not be achieved by simply increasing the statewide production of education doctorates, even if the increase were large in percentage terms. Furthermore, it has been found that superintendents in small districts look favorably upon alternatives to doctoral programs in the training of principals, and that what they want in a doctoral program, in addition to leadership training, is instruction in specific topics such as instructional methods, school finance, organizational

theory, and the politics of education. The Commission’s findings suggest that courses focused on specific topics, perhaps delivered by the latest telecommunications technology, might help the rural areas acquire the “doctoral resources” that they lack.

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**Who employs  
holders of  
education  
doctorates**

Based on 1998 data, it is estimated that only about 28 percent of each doctoral class produced in California seeks (or continues to) work in the public schools. Additional research is needed to verify this finding, to explain it, and to understand variation among institutions of higher education in where their graduates find employment. It has been noted that a number of comments were made by deans of CSU schools of education about a need for more education doctorates to teach in the California State University system. Additional research is needed to understand the competition for doctorates among educational systems—especially since it has been well established in this study that the K-12 public school districts have not shown an interest in competing financially to attract leaders who hold a doctorate.

*An important finding in this study is that a relatively small percentage of education doctorates actually go to work in elementary and secondary education.*

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**Survey results  
for California  
Community  
Colleges**

The Chief Executive Officers (CEOs) of all community colleges and districts were sent a survey questionnaire concerning the prevalence of doctorates in administrative positions in the California Community Colleges. The views of Superintendents, Presidents, and Chancellors on a variety of issues related to the doctorate are presented here.

**Educational Attainment of Chief Executive Officers.** Approximately 83 percent of CEOs in the community colleges possess a doctorate. Of those with a doctorate, 72 percent (including Ph.D.s and Ed.D.s) earned the degree in education, while 28 percent have a doctorate in a discipline other than education. The advanced degrees have been earned at 45 universities across the nation, with the University of Southern California accounting for the most (over 7%).

**Importance of the Doctorate.** The CEOs were asked a number of questions about the importance of the doctorate for community college administrators. Findings are as follows:

- The CEOs indicated that they acquired their doctorates for job advancement and promotion, intellectual growth, personal satisfaction, and acquisition of organizational and leadership skills. Of lesser importance were societal and community expectations, salary increase, and career field change. Five of the CEOs said they were currently enrolled in, or planning to enroll in, a doctoral program. These five gave essentially the same reasons for pursuing the doctoral degree as those who already possess it.

- Of the 13 CEOs who do not hold a doctorate and do not plan to attain one, the primary reason for not pursuing the degree is lack of time. Six CEOs indicated some concern about the proximity of a doctoral program. For five CEOs, proximity was “not important at all.”
- Only 66 percent of the CEOs who hold a doctorate responded that the degree was “essential” for securing their current position. Thus, about one-third indicated it was only “very helpful” or less important. While 83 percent of White males said possession of the degree was essential for securing their current position, only 22 percent of African Americans, 50 percent of Asians, 54 percent of Hispanic males, and 61 percent of women agreed with this assessment.
- CEOs were asked how important the doctoral degree was in carrying out their job responsibilities. Overall, 75 percent said the degree was “essential” or “very helpful” in doing their job, but 47 percent of those with a Ph.D. in a discipline other than education ascribed low importance, saying the degree was “somewhat” or “minimally” helpful. An interesting difference emerged between those who hold a Ph.D. in education and those who hold an Ed.D. Of those with a Ph.D., 94 percent found their degree “extremely” or “very helpful,” but only 76 percent of those with an Ed.D. in education gave the same high ratings.
- CEOs were asked about the expectations in their districts with respect to the possession of a doctorate by key administrative leaders, and they were asked whether they thought the positions should be expected to be held by persons who hold a doctorate. Only 50 percent of the CEOs indicated their districts expected Vice-Presidents for Instruction to hold a doctorate, and even fewer, 32 percent, said their districts expected the Vice-President for Student Services to hold a doctorate. The CEOs, however, had higher expectations than their districts, 70 percent indicating that VPs for Instruction should have a doctorate, and 55 percent saying that VPs for Student Services should be expected to hold a doctorate.
- CEOs were also asked what type of doctorate was preferable for each of the key leadership positions (an Ed.D. in education, a Ph.D. in education, or a Ph.D. in another discipline). As shown below (in Display 3-11), nearly half the respondents think that all three types are equally preferable. Another 25 percent prefer a doctorate in Higher Education (either an Ed.D. or a Ph.D.). About 10 percent prefer an Ed.D. in Higher Education, zero to 9 percent (depending on the position) prefer a Ph.D. in Higher Education, and 7 to 11 percent (depending on the position) prefer a Ph.D. in another discipline.

DISPLAY 3-11 *Preferred Type of Doctorate for Position*

<u>Position</u>	(1) Ed.D. In Higher Education	(2) Ph.D. in Higher Education	(3) (1) & (2) Equally Preferable	(4) Ph.D. in a Discipline Other than Education	(5) (1), (2), & (4) Equally Preferable
District Chancellor	10.4	9.4	25.5	7.5	46.2
Campus President	11.5	8.7	25.0	7.7	46.2
VP/Dean of Instruction	10.0	5.0	26.0	11.0	48.0
VP/Dean Student Services	10.4	4.2	28.1	9.4	47.9
Deans of Occupational/ Vocational Ed.	13.2	0.0	22.4	7.9	56.6

- CEOs were also asked to compare the symbolic value of the doctorate versus the training value. The vast majority (80%) responded that the symbolic value is of equal or greater value than the training.
- Finally, CEOs were asked how important it is for purposes of advancement in community college administration, that a doctorate be from a regionally accredited institution rather than from a non-accredited IHE. Nearly all (85%) of the respondents indicated that it was “extremely” or “very” important that the degree come from an accredited institution.

**Prevalence of Doctorates in Community College Administration.** An attempt was made in this study to conduct an inventory of doctorates in community college administrative positions. Because of certain limitations in the method used to collect the information, the results cannot be viewed as a precise inventory. However, the data for Chief Instructional Officers (CIOs) and Chief Student Services Officers (CSSOs) are the most accurate.

It was found that many of the key leaders in the community colleges do not have a doctorate. The percentages who do not hold a doctorate are shown below (Display 3-12):

DISPLAY 3-12 *Percent of California Community College Key Leaders Not Holding a Doctorate*

<u>Position</u>	<u>Number of Incumbents Identified in the Survey</u>	<u>Percentage Not Holding a Doctorate</u>
Chief Instructional Officer	78	44%
Chief Student Services Officer	74	54
Chief Administrative Officer	38	72
All Others Identified as Vice-Presidents	47	53
Deans and Directors	619	62
Total	857	60

**Perceptions of Supply and Demand.** The majority of Community college CEOs believe that the demand for community college administrators with “an appropriate doctorate” exceeds the supply of such persons. The majority (51%) think that demand “greatly exceeds” or “exceeds” supply, while only 14 percent think supply “greatly exceeds” or “exceeds” demand. Very few (only 2.8%) of the CEOs hold the view that supply “greatly exceeds” demand. About one-third indicated that supply and demand are “in balance.”

Analysis of the data reveals that CEOs with more administrative experience tend to see demand exceeding supply (Display 3-13).

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*DISPLAY 3-13 Perception of Supply and Demand for Doctorates in Community College Administration by Years of Experience as a Community College Administrator*

<u>Years as Administrator</u>	<u>Number of CEOs</u>	<u>Percentage Who Responded That:</u>	
		<u>Supply and Demand are in Balance</u>	<u>Demand “Greatly Exceeds” or “Exceeds” Supply</u>
Less than 13	19	42.1	36.9
13 to 18	23	39.1	47.8
19 to 21	22	31.8	50.0
22 to 27	22	22.7	59.1
More than 27	21	19.0	61.9

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**Availability of Training.** Questions about the availability of training for community college administrators elicited the following responses:

- Sixty percent of the CEOs said there is no doctoral program in community college administration/leadership within a “reasonable commuting distance” of their campus.
- Only 12 percent indicated that a program in community college administration was available at the closest CSU campus, and 14 percent said they did not know if CSU training was available.
- Nearly one-third (31%) responded that training in a program in community college administration/leadership was available at the nearest UC campus, and 13 percent said they did not know if UC training was available.
- Forty-one percent said that training was available at the closest independent, accredited institution of higher education, but 21 percent did not know if training was available at an independent institution.

**Alternatives to Formal Doctoral Training.** The CEOs were asked whether other forms of professional education could further the development of community college leaders as effectively as a formal doctoral program. Overall, more than half (56.4%) of the CEOs think that there is



no good substitute for a doctoral program. However, it is interesting to note that more than 40 percent think other forms of training can be as effective. This is not surprising in light of views of the importance of the symbolic value versus the training and the disagreement over what type of doctorate is most appropriate.

Several subgroups of CEOs have a view that is different from that of the overall majority. The key observations here are:

- As would be expected, CEOs who do not have a doctorate are much more likely than degree holders to find value in alternative forms of training—two-thirds of them responded YES, while 61 percent of those who hold a doctorate responded NO.
- Those with the least administrative experience and those with the fewest years since receiving the doctorate (presumably, the younger CEOs) are more likely to see value in alternative forms of training.

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**Summary  
findings about  
community  
colleges**

The view of the doctorate in community college administration provided by the CEOs is a confusing and complex picture. It includes a surprisingly low percentage of key leaders who hold a doctorate and low general expectations for possession of the degree, mixed views of the type of doctorate that is preferable, emphasis on the symbolic value of the degree over its training value, some reluctance to admit that alternative forms of training would be as effective as a formal degree program, and the belief that demand for doctorates exceeds supply. Additionally, many reported that access to doctoral programs focused on community college administration is limited and indicated that community college-related administrative training at nearby institutions is often not available (or its availability is unknown).

This picture suggests that the advanced training of community college administrators is an undeveloped discipline. There appears to be broad discrepancy among community college administrators about the type of degree or training that is most valuable. The various opinions include: (1) a doctorate in a discipline other than education, (2) a practical Ed.D. in higher education, (3) a research oriented PH.D. in higher education, or (4) extensive practical training (perhaps including an “MBA” in community college administration) in specific fields such as legal issues, fiscal management, labor relations, and marketing. Thus, if one assumes that key community college leaders need additional advanced training, the question may be what institutional arrangements will best meet the needs of both potential and current community college leaders.

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## Appendix A      Members of the Advisory Committee

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Assembly Bill 1279 called for the Commission to form an advisory committee to assist in its study of the production and utilization of education doctorates in California.

The Committee held its first meeting on April 11, at which time the preliminary study design, potential survey instruments and work plan for the study were reviewed. The committee met again on September 12 for the purpose of reviewing the entire study, including conclusions, options and recommendations. The following members represented their respective agencies or organizations. Not all participants attended both meetings.

### University of California

Julius Zelmanowitz, Interim Vice Provost, Academic Initiatives, Office of the President  
M.R.C. Greenwood, Chancellor, UC Santa Cruz  
Raymond Orbach, Chancellor, UC Riverside  
Bob Calfee, Dean, School of Education, UC Riverside  
Todd Greenspan, Coordinator, Education Relations, Office of the President  
Ami Zusman, Coordinator, Graduate Education, Office of the President

### California State University

David Spence, Executive Vice Chancellor, Office of the Chancellor  
Robert L. Caret, President, San Jose State University  
Paul Shaker, Dean of Education, CSU Fresno

### California Community Colleges

Victoria Morrow, Vice Chancellor  
Jose Michel, Vice Chancellor, Distance Education

### Association of Independent California Colleges and Universities

Jonathan Brown, President  
Ann Hart, Provost, Claremont Graduate University  
Beth Benedetti, Research Analyst

### California School Boards Association

Lucy Okumu, Consultant

### Association of California School Administrators

Rex Fortune, Superintendent, Center Unified School District

### Office of the Secretary of Education

Jenny Kao, Analyst

### California County Superintendents Educational Services Association

Glenn Thomas, Executive Director

### Bureau for Private Postsecondary and Vocational Education

Betty Sundberg, Consultant

Commission on Teacher Credentialing

Larry Birch, Administrator, Professional Services Division

***Invited, but unable to attend were:***

California Business Roundtable

Bill Hauck, President

Association of California Community College Administrators

Susan Bray, Director of Operations

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